

Claims:

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5 A process for the preparation of protein hydrolysate from soy flour, said process comprising: hydrolyzing aqueous slurry of defatted soy flour containing 6-30% solid content w/v using proteolytic enzyme of plant origin at pH 5-9 and temperature of  $53 \pm 5^\circ\text{C}$  under stirring for 30 minutes to 6 hours; inactivating the enzyme by a known matter; neutralizing the pH value of the slurry; separating the solids by a known manner and drying the clarified liquor so obtained to get the said hydrolysate.

What matter?

10 2. A process as claimed in claim 1, wherein the solid content of the slurry is 20% w/v.

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15 A process as claimed in claim 1, wherein the plant origin proteolytic enzyme is selected from the group comprising of papain and bromelin.

4. A process as claimed in claim 1, wherein 0.4-0.6% w/w/ of the proteolytic enzyme is added to the soy flour.

5. A process as claimed in claim 1, wherein the hydrolysis is effect for a period of 3-4 hours.

6. A process as claimed in claim 1, the drying is effected by freeze drying, spray drying and drum drying.

25 7. A process as claimed in claim 1, wherein the protein hydrolysate produced has decreased bitterness. A

8. A process as claimed in claim 1, wherein the protein hydrolysate produced is less hygroscopic in nature.

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9. A process as claimed in claim 1, wherein the protein hydrolysate has 2-2.2g/100ml bitterness recognition threshold.

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20. A protein hydrolysate obtained from soy flour, comprising four 20 to 30 trypsin inhibitor units/mg activity, 95 to 98% Nitrogen Solubility Index, 1 to 1.4% of salt content 3 to 5% moisture, 8 to 8.5% nitrogen and 30 to 35% degree of hydrolysis.

21. A protein hydrolysate as claimed in claim 20, wherein the lipoxxygenase and urease activities are not detectable.

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22. A protein hydrolysate as claimed in claim 20, further comprising 2 to 2.2g/100 ml bitterness recognition threshold.

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23. A protein hydrolysate as claimed in claim 20, wherein the amino acid composition of the protein hydrolysate is similar to the amino acid makeup of the starting material.

24. A protein hydrolysate as claimed in claim 20, wherein the protein hydrolysate retained the nutrition value present in the starting material.

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25. A protein hydrolysate as claimed in claim 20, wherein the protein hydrolysate does not impart any undesirable flavor for the finished product.

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26. A protein hydrolysate as claimed in claim 20, wherein the solubility of the protein hydrolysate is independent of the pH value.

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27. A protein hydrolysate as claimed in claim 20, <sup>which is cream colored.</sup> (has cream color).

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